UNIVERSITY OF SASKATCHEWAN

DEPARTMENT OF ECONOMICS

Economics 111.3 (01)
Price Theory and Resource Allocation
Midterm #2 - *2006-2007*

FORM A

W. DOELL **November 16, 2006**

TIME: **1 Hour** **CLOSED BOOK**

Multiple Choice: 40 Questions

INSTRUCTIONS:

1. On the answer sheet provided, print your name, the name and section number of the class, and the date.

2. Using an HB pencil, code your student number in the box so marked.

3. Answer **ALL** questions by completely filling in the circle whose letter corresponds to that of the **best** option for each question.

4. All questions are of equal value.

1. Refer to the data.

Output	Total cost
0	$24
1	33
2	41
3	48
4	54
5	61
6	69

The average total cost of producing 3 units of output:
A) is $14.
B) is $12.
C) is $13.50.
D) is $16.

2. If the price of hand calculators falls from $10 to $9 and, as a result, the quantity demanded increases from 100 to 125, then:
A) demand is elastic.
B) demand is inelastic.
C) demand is of unit elasticity.
D) not enough information is given to make a statement about elasticity.

Use the following to answer question 3:

The marginal utility schedules for product X and product Y for a hypothetical consumer. The price of product X is $4 and the price of product Y is $2. The income of the consumer is $20.

| Product X		Product Y	
Quantity	MU_x	Quantity	MU_y
1	32	1	24
2	28	2	20
3	24	3	16
4	20	4	12
5	16	5	8

3. Refer to the above table. If the consumer can only buy product X, how much will the consumer buy and what will be the total utility per dollar spent?
   A) 4X and 20
   B) 4X and 104
   C) 5X and 16
   D) 5X and 120

4. Recent theories of consumer behavior have:
   A) emphasized that consumption is basically an instantaneous act.
   B) contended that in the $MU_x/P_x = MU_y/P_y$ equation MU is understated for time-intensive goods.
   C) attempted to introduce the opportunity cost of time as a component of product price.
   D) argued that inflationary expectations negate the theory of consumer behavior.

5. Which of the following curves is not U-shaped?
   A) MC
   B) AFC
   C) AVC
   D) ATC

6. Which of the following is likely to be the most economically efficient form of gift giving?
   A) noncash gifts from distant relatives to children
   B) cash gifts from distant relatives to children
   C) noncash gifts from distant relatives that require a cash return gift
   D) cash gifts from distant relatives that require a noncash return gift

Use the following to answer question 7:
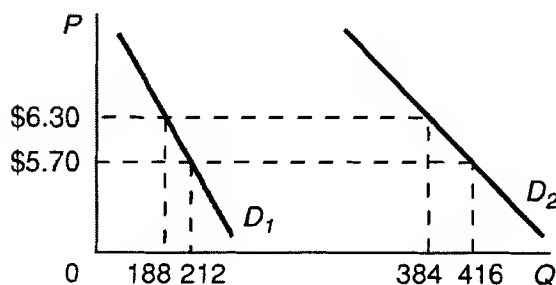
7. Refer to the above diagram and assume a single good. If the price of the good **increased** from $5.70 to $6.30 along D_1, the Price elasticity of Demand along this portion of the demand curve would be:
   A) 0.8.
   B) 1.0.
   C) 1.2.
   D) 2.0.

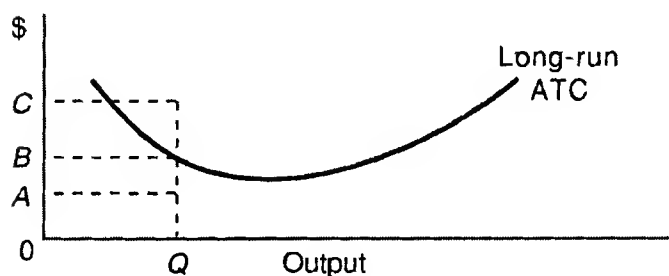8. Marginal product is:
   A) the increase in total output attributable to the employment of one more worker.
   B) the increase in total revenue attributable to the employment of one more worker.
   C) the increase in total cost attributable to the employment of one more worker.
   D) total product divided by the number of workers employed.

Use the following to answer question 9:

9. Refer to the above diagram. For output level Q, per unit costs of A are:
   A) unobtainable and imply the inefficient use of factors of production.
   B) unobtainable, given factor of production prices and the current state of technology.
   C) obtainable, but imply the inefficient use of factors of production.
   D) obtainable and imply least-cost production of this output.

10. What is the price elasticity of supply between points A and B above?
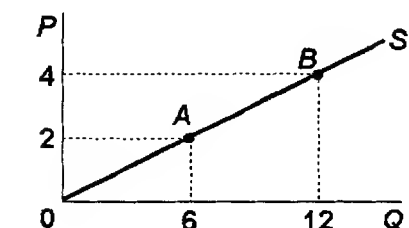
100

A) 1
B) 3
C) -1
D) $\frac{1}{3}$

11. Assume you are spending your full budget and purchasing such amounts of X and Y that the marginal utility from the last units consumed is 40 and 20 utils respectively. Assume (a) the prices of X and Y are $8 and $4 respectively; (b) it takes 3 hours to consume a unit of X and 1 hour to consume a unit of Y; and (c) your time is worth $2 per hour. You
A) should substitute X for Y until the marginal utility per hour is the same for both products.
B) are consuming X and Y in the optimal amounts.
C) should consume less of Y and more of X.
D) should consume less of X and more of Y.

Use the following to answer question 12:
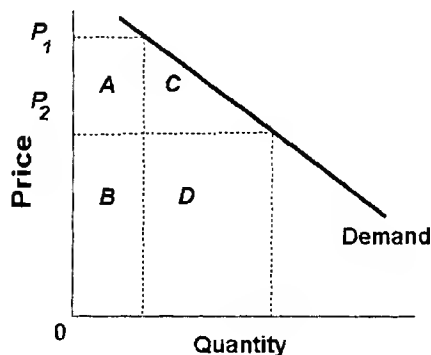
12. Refer to the above diagram. The decline in price from P_1 to P_2 will:
A) increase total revenue by D.
B) increase total revenue by B + D.
C) decrease total revenue by A.
D) decrease total revenue by D + A.
E) increase total revenue by D - A.

13. Other things being equal, demand is likely to be inelastic if the marginal utility of a product:
    A) increases slowly as additional units are consumed.
    B) increases rapidly as additional units are consumed.
    C) decreases slowly as additional units are consumed.
    D) decreases rapidly as additional units are consumed.

14. If a 10 percent increase in the price of one good results in a decrease of 5 percent in the quantity demanded of another good, then it can be concluded that the two goods are:
    A) complements.
    B) substitutes.
    C) independent.
    D) normal.

15. A natural monopoly exists when:
    A) unit costs are minimized by having one firm produce an industry's entire output.
    B) several formerly competing producers merge to become the only firm in an industry.
    C) short-run average total cost curves are tangent to long-run average total cost curves.
   D) minimum efficient scale is attained at a small level of output.

Use the following to answer question 16:

Harvey quit his job where he earned $45,000 a year. He figures his entrepreneurial talent or foregone entrepreneurial income to be $5,000 a year. To start the business, he cashed in $100,000 in bonds that earned 10 percent interest annually to buy a software company, Extreme Gaming. In the first year, the firm sold 11,000 units of software at $75 for each unit. Of the $75 per unit, $55 goes for the costs of production, packaging, marketing, employee wages and benefits, and rent on a building.

16. Refer to the above information. The total economic costs (explicit and implicit, including a normal profit) in the first year were:
    A) $60,000.
    B) $150,000.
   C) $665,000.
    D) $825,000.

17. Suppose you have a limited money income and you are purchasing products A and B whose prices happen to be the same. To maximize your utility you should purchase A and B in such amounts that:
A) their marginal utilities are the same.
B) their total utilities are the same.
C) their marginal and total utilities are proportionate.
D) the income and substitution effects associated with each are equal.

18. A consumer having a limited budget will maximize utility or satisfaction when the:
A) ratios of the marginal utility of each product purchased divided by its price are equal.
B) total utility derived from each product purchased is the same.
C) marginal utility of each product purchased is the same.
D) price of each product purchased is the same.

Use the following to answer question 19:
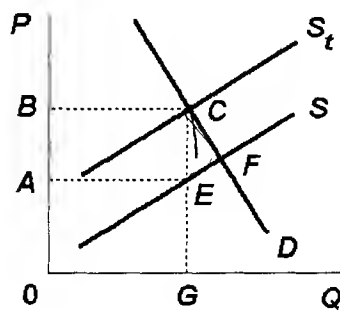
19. Refer to the above figure in which S is the before-tax supply curve and S_t is the supply curve after the imposition of an excise tax. The burden of this tax is borne:
A) equally by consumers and producers.
B) most heavily by consumers.
C) most heavily by producers.
D) only by consumers.

20. Suppose that Ms. Spencer is currently exhausting her money income by purchasing 10 units of A and 8 units of B at prices of $2 and $4 respectively. The marginal utility of the last units of A and B are 16 and 24 respectively. These data suggest that Ms. Spencer:
A) has preferences which are at odds with the principle of diminishing marginal utility.
B) considers A and B to be complementary goods.
C) should buy less A and more B.
D) should buy less B and more A.

Use the following to answer question 21:
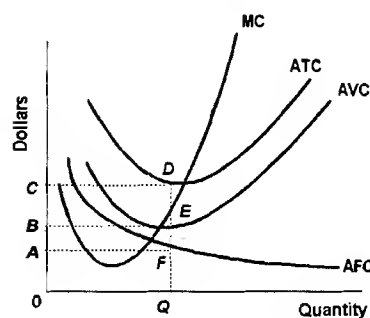
21. Refer to the above diagram. At output level Q total cost is:
    A) 0BEQ.
    B) BCDE.
    C) 0BEQ plus BCDE.
    D) 0AFQ plus BCDE.

22. We would expect the cross elasticity of demand between Pepsi and Coke to be:
    A) positive, indicating normal goods.
    B) positive, indicating inferior goods.
    C) positive, indicating substitute goods.
    D) negative, indicating substitute goods.

23. Which is not a fixed cost?
    A) monthly rent of $1,000 contractually specified in a one-year lease
    B) an insurance premium of $50 per year, paid last month
    C) an attorney's retainer of $50,000 per year
    D) a worker's wage of $15 per hour

Use the following to answer questions 24-25:

The following marginal utility data is for products X and Y. Assume that the prices of X and Y are $4 and $2 respectively and that the consumer's income is $18.

Units of X	Marginal utility, X	Units of Y	Marginal utility, Y
1	20	1	16
2	16	2	14
3	12	3	12
4	8	4	10
5	6	5	8
6	4	6	6

24. Refer to the above data. If the price of X decreases to $2, then the utility-maximizing combination of the two products is:
   A) 2 of X and 5 of Y.
   B) 4 of X and 6 of Y..
   C) 6 of X and 3 of Y.
   D) 4 of X and 5 of Y

25. Refer to the above data. What quantities of X and Y should be purchased to maximize utility?
   A) 2 of X and 1 of Y
   B) 4 of X and 5 of Y
   C) 2 of X and 5 of Y
   D) 2 of X and 6 of Y

26. Informed University raises tuition for the purpose of increasing its revenue so that more faculty can be hired. IU is assuming that the demand for education at IU is:
   A) decreasing.
   B) relatively elastic.
   C) perfectly elastic.
   D) relatively inelastic.

27. If you owned a small farm, which of the following would be a fixed cost?
   A) harvest labor
   B) hail insurance
   C) fertilizer
   D) seed

28. Suppose Via Rail asked government authorities for permission to increase its commuter rates by 20 percent. The railroad argued that declining revenues made this rate increase essential. Opponents of the rate increase contended that the railroad's revenues would fall because of the rate hike. It can be concluded that:
   A) both groups felt that the demand was elastic but for different reasons.
   B) both groups felt that the demand was inelastic but for different reasons.
   C) the railroad felt that the demand for passenger service was inelastic and opponents of the rate increase felt it was elastic.
   D) the railroad felt that the demand for passenger service was elastic and opponents of the rate increase felt it was inelastic.

29. At what point does marginal product equal average product?
   A) where average product is equal to its minimum value
   B) where average product is equal to its maximum value
   C) where marginal product is equal to its minimum value
   D) where marginal product is equal to its maximum value

30. Refer to the table below, if the price of product Z increases to $15, what would be the consumer surplus:

Quantity demanded	Price per unit ($)
1	20
2	15
3	12
4	8

   A) $3
   B) $8
   C) $5
   D) $15

31. Assume that the price of product X rises by 5 percent and the quantity supplied of X increases by 15 percent. The coefficient of price elasticity of supply for good X is:
   A) negative and therefore X is an inferior good.
   B) positive and therefore X is a normal good.
   C) less than 1 and therefore supply is inelastic.
   D) more than 1 and therefore supply is elastic.

32. The total utility derived from the consumption of diamonds tends to be:
    A) low and the marginal utility tends to be low.
    B) high and the marginal utility tends to be high.
    C) low but the marginal utility tends to be high.
    D) high but the marginal utility tends to be low.

Use the following to answer question 33:
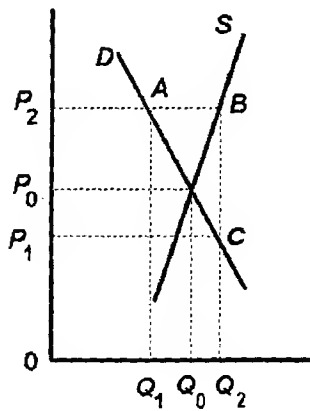
33. Refer to the above graph of the market for wheat and to the following statement. "The government adopts a price support program for wheat and supports the price of P_2." As a result of this price support program:
    A) there will be a shortage of wheat in the amount of AB.
    →B) there will be a surplus of wheat in the amount of Q_1Q_2.
    C) there will be a surplus of wheat in the amount of Q_0Q_2.
    D) wheat farmers will receive less total income than if there were no price support program.

34. Costs to an economist:
    A) consist only of explicit costs.
    B) may or may not involve monetary outlays.
    C) never reflect monetary outlays.
    D) always reflect monetary outlays.

Use the following to answer question 35:
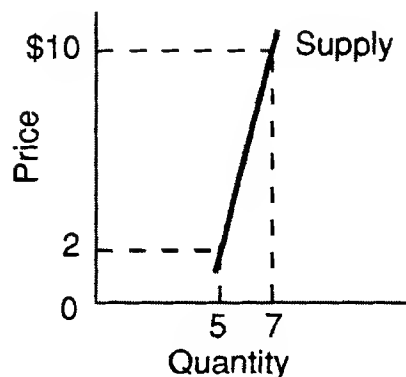
35. Refer to the above diagram and assume that price decreases from $10 to $2. The coefficient of the price elasticity of supply (midpoints formula) relating to this price change is about:
    A) 4 and supply is elastic.
    B) 1 and supply is unit elastic.
    C) .5 and supply is inelastic.
    D) .25 and supply is inelastic.

36. Assume that a consumer purchases a combination of product A and product B such that the MUa/Pa = 8 and MUb/Pb = 6. To maximize utility without spending more money, the consumer should:
    A) purchase less of product A and more of product B.
    B) purchase more of product A and less of product B.
    C) purchase more of both product A and product B.
    D) make no change in purchases of products A and B.

Use the following to answer question 37:
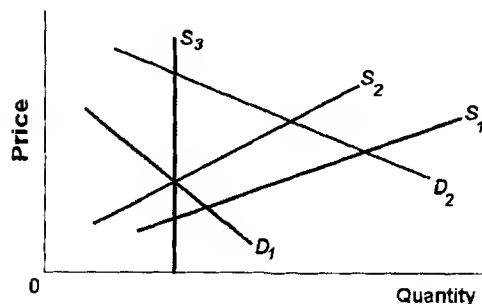
37. The above diagram concerns supply adjustments to an increase in demand (D$_1$ to D$_2$) in the immediate market period, the short run, and the long run. In the long run the increase in demand will:
   A) have no effect on either equilibrium price or quantity.
   B) increase equilibrium price, but not equilibrium quantity.
   C) increase equilibrium quantity, but not equilibrium price.
   D) increase both equilibrium price and quantity.

Use the following to answer question 38:
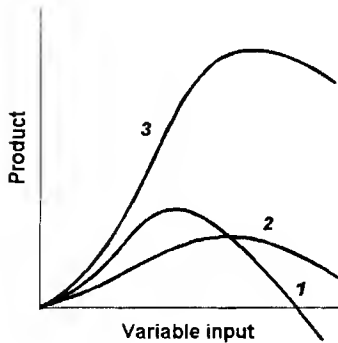
38. In the above diagram curves 1, 2, and 3 represent the:
   A) average, marginal, and total product curves respectively.
   B) marginal, average, and total product curves respectively.
   C) total, average, and marginal product curves respectively.
   D) total, marginal, and average product curves respectively.

39. The marginal product of labor curve shows the change in total product resulting from a:
   A) One-unit increase in the quantity of a particular factor of production used, letting other factors of production vary.
   B) One-unit increase in the quantity of a particular factor of production used, holding constant other factors of production.
   C) change in the cost of a variable factor of production.
   D) change in the cost of a fixed factor of production.

40. If a firm wanted to know how much it would save by producing one less unit of output, it would look to:
   A) MC.
   B) ATC.
   C) AVC.
   D) AFC.